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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/978,309	10/15/2001	Tony Cruz	033352-010	4565

21839 7590 04/08/2003

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EXAMINER

LIU, SAMUEL W

ART UNIT PAPER NUMBER

1653

DATE MAILED: 04/08/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/978,309

Applicant(s)

CRUZ ET AL.

Examiner

Samuel W Liu

Art Unit

1653

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 11 December 2002.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-33 is/are pending in the application.
- 4a) Of the above claim(s) none is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1-33 are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_ 6) ☐ Other:

Restriction to one of the following inventions is required under 35 U.S.C. 121:

SET 1:

1. Claims 1-6, drawn to a polypeptide comprising amino acid sequence of SEQ ID NO:26 and a pharmaceutical composition comprising the polypeptide thereof, classified in class 530, subclass 300, and class 514, subclass 2.
2. Claims 1-6, drawn to a polypeptide comprising amino acid sequence of SEQ ID NO: 81 and a pharmaceutical composition comprising the polypeptide thereof, classified in class 530, subclass 300, and class 514, subclass 2
3. Claims 1-6, drawn to a polypeptide comprising amino acid sequence of SEQ ID NO:73 and a pharmaceutical composition comprising the polypeptide thereof, classified in class 530, subclass 350, and class 514, subclass 2.
4. Claims 1-6, drawn to a polypeptide comprising amino acid sequence of SEQ ID NO:74 and a pharmaceutical composition comprising the polypeptide thereof, classified in class 530, subclass 350, and class 514, subclass 2.
5. Claims 1-6, drawn to a polypeptide comprising amino acid sequence of SEQ ID NO:75 and a pharmaceutical composition comprising the polypeptide thereof, classified in class 530, subclass 350, and class 514, subclass 2.
6. Claims 1-6, drawn to a polypeptide comprising amino acid sequence of SEQ ID NO:76 and a pharmaceutical composition comprising the polypeptide thereof, classified in class 530, subclass 350, and class 514, subclass 2.
7. Claims 1-6, drawn to a polypeptide comprising amino acid sequence of SEQ ID NO:77 and a pharmaceutical composition comprising the polypeptide thereof, classified in class 530, subclass 350, and class 514, subclass 2.
8. Claims 1-6, drawn to a polypeptide comprising amino acid sequence of SEQ ID NO:78 and a pharmaceutical composition comprising the polypeptide thereof, classified in class 530, subclass 350, and class 514, subclass 2.

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9. Claims 1-6, drawn to a polypeptide comprising amino acid sequence of SEQ ID NO:83 and a pharmaceutical composition comprising the polypeptide thereof, classified in class 530, subclass 350, and class 514, subclass 2.

SET 2.

10. Claims 7-9, drawn to an antibody that binds to the polypeptide comprising amino acid sequence of SEQ ID NO: 26, classified in class 530, subclass 387.1.
11. Claims 7-9, drawn to an antibody that binds to the polypeptide comprising amino acid sequence of SEQ ID NO: 81, classified in class 530, subclass 387.1.
12. Claims 7-9, drawn to an antibody that binds to the polypeptide comprising amino acid sequence of SEQ ID NO: 73, classified in class 530, subclass 387.1.
13. Claims 7-9, drawn to an antibody that binds to the polypeptide comprising amino acid sequence of SEQ ID NO: 74, classified in class 530, subclass 387.1.
14. Claims 7-9, drawn to an antibody that binds to the polypeptide comprising amino acid sequence of SEQ ID NO: 75, classified in class 530, subclass 387.1.
15. Claims 7-9, drawn to an antibody that binds to the polypeptide comprising amino acid sequence of SEQ ID NO: 76, classified in class 530, subclass 387.1.
16. Claims 7-9, drawn to an antibody that binds to the polypeptide comprising amino acid sequence of SEQ ID NO: 77, classified in class 530, subclass 387.1.
17. Claims 7-9, drawn to an antibody that binds to the polypeptide comprising amino acid sequence of SEQ ID NO: 78, classified in class 530, subclass 387.1.
18. Claims 7-9, drawn to an antibody that binds to the polypeptide comprising amino acid sequence of SEQ ID NO: 83, classified in class 530, subclass 387.1.

SET3.

19. Claims 15-18, 24, 25, 29 and 30, drawn to method of treating multiple sclerosis comprising administering to a patient the polypeptide of SEQ ID NO:26, classified in class 514, subclass 2.

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20. Claims 15-18, 24, 25, 29 and 30, drawn to method of treating multiple sclerosis comprising administering to a patient the polypeptide of SEQ ID NO:81, classified in class 514, subclass 2.
21. Claims 15-18, 24, 25, 29 and 30, drawn to method of treating multiple sclerosis comprising administering to a patient the polypeptide of SEQ ID NO:73, classified in class 514, subclass 2.
22. Claims 15-18, 24, 25, 29 and 30, drawn to method of treating multiple sclerosis comprising administering to a patient the polypeptide of SEQ ID NO:74, classified in class 514, subclass 2.
23. Claims 15-18, 24, 25, 29 and 30, drawn to method of treating multiple sclerosis comprising administering to a patient the polypeptide of SEQ ID NO:75, classified in class 514, subclass 2.
24. Claims 15-18, 24, 25, 29 and 30, drawn to method of treating multiple sclerosis comprising administering to a patient the polypeptide of SEQ ID NO:76, classified in class 514, subclass 2.
25. Claims 15-18, 24, 25, 29 and 30, drawn to method of treating multiple sclerosis comprising administering to a patient the polypeptide of SEQ ID NO:77, classified in class 514, subclass 2.
26. Claims 15-18, 24, 25, 29 and 30, drawn to method of treating multiple sclerosis comprising administering to a patient the polypeptide of SEQ ID NO:78, classified in class 514, subclass 2.
27. Claims 15-18, 24, 25, 29 and 30, drawn to method of treating multiple sclerosis comprising administering to a patient the polypeptide of SEQ ID NO:83, classified in class 514, subclass 2.

SET4.

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28. Claims 15-18, 24, 26, 29 and 31, drawn to method of treating Parkinson's disease comprising administering to a patient the polypeptide of SEQ ID NO:26, classified in class 514, subclass 2.
29. Claims 15-18, 24, 26, 29 and 31, drawn to method of treating Parkinson's disease comprising administering to a patient the polypeptide of SEQ ID NO:81, classified in class 514, subclass 2.
30. Claims 15-18, 24, 26, 29 and 31, drawn to method of treating Parkinson's disease comprising administering to a patient the polypeptide of SEQ ID NO:73, classified in class 514, subclass 2.
31. Claims 15-18, 24, 26, 29 and 31, drawn to method of treating Parkinson's disease comprising administering to a patient the polypeptide of SEQ ID NO:74, classified in class 514, subclass 2.
32. Claims 15-18, 24, 26, 29 and 31, drawn to method of treating Parkinson's disease comprising administering to a patient the polypeptide of SEQ ID NO:75, classified in class 514, subclass 2.
33. Claims 15-18, 24, 26, 29 and 31, drawn to method of treating Parkinson's disease comprising administering to a patient the polypeptide of SEQ ID NO:76, classified in class 514, subclass 2.
34. Claims 15-18, 24, 26, 29 and 31, drawn to method of treating Parkinson's disease comprising administering to a patient the polypeptide of SEQ ID NO:77, classified in class 514, subclass 2.
35. Claims 15-18, 24, 26, 29 and 31, drawn to method of treating Parkinson's disease comprising administering to a patient the polypeptide of SEQ ID NO:78, classified in class 514, subclass 2.
36. Claims 15-18, 24, 26, 29 and 31, drawn to method of treating Parkinson's disease comprising administering to a patient the polypeptide of SEQ ID NO:83, classified in class 514, subclass 2.

SET5.

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37. Claims 15-18, 24, 27, 29 and 32, drawn to method of treating Alzheimer's disease comprising administering to a patient the polypeptide of SEQ ID NO:26, classified in class 514, subclass 2.
38. Claims 15-18, 24, 27, 29 and 32, drawn to method of treating Alzheimer's disease comprising administering to a patient the polypeptide of SEQ ID NO:81, classified in class 514, subclass 2.
39. Claims 15-18, 24, 27, 29 and 32, drawn to method of treating Alzheimer's disease comprising administering to a patient the polypeptide of SEQ ID NO:73, classified in class 514, subclass 2.
40. Claims 15-18, 24, 27, 29 and 32, drawn to method of treating Alzheimer's disease comprising administering to a patient the polypeptide of SEQ ID NO:74, classified in class 514, subclass 2.
41. Claims 15-18, 24, 27, 29 and 32, drawn to method of treating Alzheimer's disease comprising administering to a patient the polypeptide of SEQ ID NO:75, classified in class 514, subclass 2.
42. Claims 15-18, 24, 27, 29 and 32, drawn to method of treating Alzheimer's disease comprising administering to a patient the polypeptide of SEQ ID NO:76, classified in class 514, subclass 2.
43. Claims 15-18, 24, 27, 29 and 32, drawn to method of treating Alzheimer's disease comprising administering to a patient the polypeptide of SEQ ID NO:77, classified in class 514, subclass 2.
44. Claims 15-18, 24, 27, 29 and 32, drawn to method of treating Alzheimer's disease comprising administering to a patient the polypeptide of SEQ ID NO:78, classified in class 514, subclass 2.
45. Claims 15-18, 24, 27, 29 and 32, drawn to method of treating Alzheimer's disease comprising administering to a patient the polypeptide of SEQ ID NO:83, classified in class 514, subclass 2.

SET6.

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46. Claims 15-18, 24, and 25, drawn to method of treating multiple sclerosis comprising administering to a patient the antibody that binds polypeptide of SEQ ID NO:26, classified in class 530, subclass 300, 388.1 and 389.1, and class 424, subclass 184.1.
47. Claims 15-18, 24, and 25, drawn to method of treating multiple sclerosis comprising administering to a patient the antibody that binds polypeptide of SEQ ID NO:81, classified in class 530, subclass 300, 388.1 and 389.1, and class 424, subclass 184.1.
48. Claims 15-18, 24, and 25, drawn to method of treating multiple sclerosis comprising administering to a patient the antibody that binds polypeptide of SEQ ID NO:73, classified in class 530, subclass 300, 388.1 and 389.1, and class 424, subclass 184.1.
49. Claims 15-18, 24, and 25, drawn to method of treating multiple sclerosis comprising administering to a patient the antibody that binds polypeptide of SEQ ID NO:74, classified in class 530, subclass 300, 388.1 and 389.1, and class 424, subclass 184.1.
50. Claims 15-18, 24, and 25, drawn to method of treating multiple sclerosis comprising administering to a patient the antibody that binds polypeptide of SEQ ID NO:75, classified in class 530, subclass 300, 388.1 and 389.1, and class 424, subclass 184.1.
51. Claims 15-18, 24, and 25, drawn to method of treating multiple sclerosis comprising administering to a patient the antibody that binds polypeptide of SEQ ID NO:76, classified in class 530, subclass 300, 388.1 and 389.1, and class 424, subclass 184.1.
52. Claims 15-18, 24, and 25, drawn to method of treating multiple sclerosis comprising administering to a patient the antibody that binds polypeptide of SEQ ID NO:77, classified in class 530, subclass 300, 388.1 and 389.1, and class 424, subclass 184.1.



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- 53. Claims 15-18, 24, and 25, drawn to method of treating multiple sclerosis comprising administering to a patient the antibody that binds polypeptide of SEQ ID NO:78, classified in class 530, subclass 300, 388.1 and 389.1, and class 424, subclass 184.1.
- 54. Claims 15-18, 24, and 25, drawn to method of treating multiple sclerosis comprising administering to a patient the antibody that binds polypeptide of SEQ ID NO:83, classified in class 530, subclass 300, 388.1 and 389.1, and class 424, subclass 184.1.

SET7.

- 55. Claims 15-18, 24, and 26, drawn to method of treating Parkinson's disease comprising administering to a patient the antibody that binds polypeptide of SEQ ID NO:26, classified in class 530, subclass 300, 388.1 and 389.1, and class 424, subclass 184.1.
- 56. Claims 15-18, 24, and 26, drawn to method of treating Parkinson's disease comprising administering to a patient the antibody that binds polypeptide of SEQ ID NO:81, classified in class 530, subclass 300, 388.1 and 389.1, and class 424, subclass 184.1.
- 57. Claims 15-18, 24, and 26, drawn to method of treating Parkinson's disease comprising administering to a patient the antibody that binds polypeptide of SEQ ID NO:74, classified in class 530, subclass 300, 388.1 and 389.1, and class 424, subclass 184.1.
- 58. Claims 15-18, 24, and 26, drawn to method of treating Parkinson's disease comprising administering to a patient the antibody that binds polypeptide of SEQ ID NO:75, classified in class 530, subclass 300, 388.1 and 389.1, and class 424, subclass 184.1.
- 59. Claims 15-18, 24, and 26, drawn to method of treating Parkinson's disease comprising administering to a patient the antibody that binds polypeptide of SEQ ID NO:76, classified in class 530, subclass 300, 388.1 and 389.1, and class 424, subclass 184.1.

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60. Claims 15-18, 24, and 26, drawn to method of treating Parkinson's disease comprising administering to a patient the antibody that binds polypeptide of SEQ ID NO:77, classified in class 530, subclass 300, 388.1 and 389.1, and class 424, subclass 184.1.
61. Claims 15-18, 24, and 26, drawn to method of treating Parkinson's disease comprising administering to a patient the antibody that binds polypeptide of SEQ ID NO:77, classified in class 530, subclass 300, 388.1 and 389.1, and class 424, subclass 184.1.
62. Claims 15-18, 24, and 26, drawn to method of treating Parkinson's disease comprising administering to a patient the antibody that binds polypeptide of SEQ ID NO:78, classified in class 530, subclass 300, 388.1 and 389.1, and class 424, subclass 184.1.
63. Claims 15-18, 24, and 26, drawn to method of treating Parkinson's disease comprising administering to a patient the antibody that binds polypeptide of SEQ ID NO:83, classified in class 530, subclass 300, 388.1 and 389.1, and class 424, subclass 184.1.

SET8.

64. Claims 15-18, 24, and 27, drawn to method of treating Alzheimer's disease comprising administering to a patient the antibody that binds polypeptide of SEQ ID NO:26, classified in class 530, subclass 300, 388.1 and 389.1, and class 424, subclass 184.1.
65. Claims 15-18, 24, and 27, drawn to method of treating Alzheimer's disease comprising administering to a patient the antibody that binds polypeptide of SEQ ID NO:81, classified in class 530, subclass 300, 388.1 and 389.1, and class 424, subclass 184.1.
66. Claims 15-18, 24, and 27, drawn to method of treating Alzheimer's disease comprising administering to a patient the antibody that binds polypeptide of SEQ ID NO:73, classified in class 530, subclass 300, 388.1 and 389.1, and class 424, subclass 184.1.

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67. Claims 15-18, 24, and 27, drawn to method of treating Alzheimer's disease comprising administering to a patient the antibody that binds polypeptide of SEQ ID NO:74, classified in class 530, subclass 300, 388.1 and 389.1, and class 424, subclass 184.1.
68. Claims 15-18, 24, and 27, drawn to method of treating Alzheimer's disease comprising administering to a patient the antibody that binds polypeptide of SEQ ID NO:75, classified in class 530, subclass 300, 388.1 and 389.1, and class 424, subclass 184.1.
69. Claims 15-18, 24, and 27, drawn to method of treating Alzheimer's disease comprising administering to a patient the antibody that binds polypeptide of SEQ ID NO:76, classified in class 530, subclass 300, 388.1 and 389.1, and class 424, subclass 184.1.
70. Claims 15-18, 24, and 27, drawn to method of treating Alzheimer's disease comprising administering to a patient the antibody that binds polypeptide of SEQ ID NO:77, classified in class 530, subclass 300, 388.1 and 389.1, and class 424, subclass 184.1.
71. Claims 15-18, 24, and 27, drawn to method of treating Alzheimer's disease comprising administering to a patient the antibody that binds polypeptide of SEQ ID NO:78, classified in class 530, subclass 300, 388.1 and 389.1, and class 424, subclass 184.1.
72. Claims 15-18, 24, and 27, drawn to method of treating Alzheimer's disease comprising administering to a patient the antibody that binds polypeptide of SEQ ID NO:83, classified in class 530, subclass 300, 388.1 and 389.1, and class 424, subclass 184.1.

SET9.

73. Claim 23, drawn to method of treating wound comprising administering to a patient the antibody that binds polypeptide of SEQ ID NO:26, classified in class 530, subclass 300, 388.1 and 389.1, and class 424, subclass 184.1.

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74. Claim 23, drawn to method of treating wound comprising administering to a patient the antibody that binds polypeptide of SEQ ID NO:81, classified in class 530, subclass 300, 388.1 and 389.1, and class 424, subclass 184.1.
75. Claim 23, drawn to method of treating wound comprising administering to a patient the antibody that binds polypeptide of SEQ ID NO:73, classified in class 530, subclass 300, 388.1 and 389.1, and class 424, subclass 184.1.
76. Claim 23, drawn to method of treating wound comprising administering to a patient the antibody that binds polypeptide of SEQ ID NO:74, classified in class 530, subclass 300, 388.1 and 389.1, and class 424, subclass 184.1.
77. Claim 23, drawn to method of treating wound comprising administering to a patient the antibody that binds polypeptide of SEQ ID NO:75, classified in class 530, subclass 300, 388.1 and 389.1, and class 424, subclass 184.1.
78. Claim 23, drawn to method of treating wound comprising administering to a patient the antibody that binds polypeptide of SEQ ID NO:76, classified in class 530, subclass 300, 388.1 and 389.1, and class 424, subclass 184.1.
79. Claim 23, drawn to method of treating wound comprising administering to a patient the antibody that binds polypeptide of SEQ ID NO:77, classified in class 530, subclass 300, 388.1 and 389.1, and class 424, subclass 184.1.
80. Claim 23, drawn to method of treating wound comprising administering to a patient the antibody that binds polypeptide of SEQ ID NO:78, classified in class 530, subclass 300, 388.1 and 389.1, and class 424, subclass 184.1.
81. Claim 23, drawn to method of treating wound comprising administering to a patient the antibody that binds polypeptide of SEQ ID NO:79, classified in class 530, subclass 300, 388.1 and 389.1, and class 424, subclass 184.1.

SET10.

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82. Claim 23, drawn to method of treating wound comprising administering to a patient the polypeptide of SEQ ID NO:26, classified in class 530, subclass 300, class 514, subclass 2.
83. Claim 23, drawn to method of treating wound comprising administering to a patient the polypeptide of SEQ ID NO:81, classified in class 530, subclass 300, class 514, subclass 2.
84. Claim 23, drawn to method of treating wound comprising administering to a patient the polypeptide of SEQ ID NO:73, classified in class 530, subclass 300, class 514, subclass 2.
85. Claim 23, drawn to method of treating wound comprising administering to a patient the polypeptide of SEQ ID NO:74, classified in class 530, subclass 300, class 514, subclass 2.
86. Claim 23, drawn to method of treating wound comprising administering to a patient the polypeptide of SEQ ID NO:75, classified in class 530, subclass 300, class 514, subclass 2.
87. Claim 23, drawn to method of treating wound comprising administering to a patient the polypeptide of SEQ ID NO:76, classified in class 530, subclass 300, class 514, subclass 2.
88. Claim 23, drawn to method of treating wound comprising administering to a patient the polypeptide of SEQ ID NO:77, classified in class 530, subclass 300, class 514, subclass 2.
89. Claim 23, drawn to method of treating wound comprising administering to a patient the polypeptide of SEQ ID NO:78, classified in class 530, subclass 300, class 514, subclass 2.
90. Claim 23, drawn to method of treating wound comprising administering to a patient the polypeptide of SEQ ID NO:79, classified in class 530, subclass 300, class 514, subclass 2.

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SET11.

91. Claims 19-22 and 28, drawn to method of treating arthritis comprising administering to a patient the polypeptide of SEQ ID NO:26, classified in class 530, subclass 300, class 514, subclass 2.
92. Claims 19-22 and 28, drawn to method of treating arthritis comprising administering to a patient the polypeptide of SEQ ID NO:81, classified in class 530, subclass 300, class 514, subclass 2.
93. Claims 19-22 and 28, drawn to method of treating arthritis comprising administering to a patient the polypeptide of SEQ ID NO:73, classified in class 530, subclass 300, class 514, subclass 2.
94. Claims 19-22 and 28, drawn to method of treating arthritis comprising administering to a patient the polypeptide of SEQ ID NO:74, classified in class 530, subclass 300, class 514, subclass 2.
95. Claims 19-22 and 28, drawn to method of treating arthritis comprising administering to a patient the polypeptide of SEQ ID NO:75, classified in class 530, subclass 300, class 514, subclass 2.
96. Claims 19-22 and 28, drawn to method of treating arthritis comprising administering to a patient the polypeptide of SEQ ID NO:76, classified in class 530, subclass 300, class 514, subclass 2.
97. Claims 19-22 and 28, drawn to method of treating arthritis comprising administering to a patient the polypeptide of SEQ ID NO:77, classified in class 530, subclass 300, class 514, subclass 2.
98. Claims 19-22 and 28, drawn to method of treating arthritis comprising administering to a patient the polypeptide of SEQ ID NO:78, classified in class 530, subclass 300, class 514, subclass 2.
99. Claims 19-22 and 28, drawn to method of treating arthritis comprising administering to a patient the polypeptide of SEQ ID NO:83, classified in class 530, subclass 300, class 514, subclass 2.

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SET12.

100. Claims 19-22 and 28, drawn to method of treating inflammatory dermatosis comprising administering to a patient the polypeptide of SEQ ID NO:26, classified in class 530, subclass 300, class 514, subclass 2.
101. Claims 19-22 and 28, drawn to method of treating inflammatory dermatosis comprising administering to a patient the polypeptide of SEQ ID NO:81, classified in class 530, subclass 300, class 514, subclass 2.
102. Claims 19-22 and 28, drawn to method of treating inflammatory dermatosis administering to a patient using the polypeptide of SEQ ID NO:73, classified in class 530, subclass 300, class 514, subclass 2.
103. Claims 19-22 and 28, drawn to method of treating inflammatory dermatosis comprising administering to a patient the polypeptide of SEQ ID NO:74, classified in class 530, subclass 300, class 514, subclass 2.
104. Claims 19-22 and 28, drawn to method of treating inflammatory dermatosis comprising administering to a patient the polypeptide of SEQ ID NO:75, classified in class 530, subclass 300, class 514, subclass 2.
105. Claims 19-22 and 28, drawn to method of treating inflammatory dermatosis comprising administering to a patient the polypeptide of SEQ ID NO:76, classified in class 530, subclass 300, class 514, subclass 2.
106. Claims 19-22 and 28, drawn to method of treating inflammatory dermatosis comprising administering to a patient the polypeptide of SEQ ID NO:77, classified in class 530, subclass 300, class 514, subclass 2.
107. Claims 19-22 and 28, drawn to method of treating inflammatory dermatosis comprising administering to a patient the polypeptide of SEQ ID NO:78, classified in class 530, subclass 300, class 514, subclass 2.

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108. Claims 19-22 and 28, drawn to method of treating inflammatory dermatosis comprising administering to a patient the polypeptide of SEQ ID NO:83, classified in class 530, subclass 300, class 514, subclass 2.

SET12.

109-117.

Claims 19-22 and 28, drawn to method of treating inflammatory bowel disease comprising administering to a patient the polypeptide of SEQ ID NO:26, 81, 73, 74, 75, 76, 77, 78 and 83, respectively, classified in class 530, subclass 300, class 514, subclass 2.

SET13.

118-126.

Claims 19-22 and 28, drawn to method of treating cancer comprising administering to a patient the polypeptide of SEQ ID NO:26, 81, 73, 74, 75, 76, 77, 78 and 83, respectively, classified in class 530, subclass 300, class 514, subclass 2.

SET14.

127-135.

Claims 19-22 and 28, drawn to method of treating kidney fibrosis comprising administering to a patient the polypeptide of SEQ ID NO:26, 81, 73, 74, 75, 76, 77, 78 and 83, respectively, classified in class 530, subclass 300, class 514, subclass 2.

SET15.

136-144.

Claims 19-22 and 28, drawn to method of treating inflammatory lung disease comprising administering to a patient the polypeptide of SEQ ID NO:26, 81, 73, 74, 75, 76, 77, 78 and 83, respectively, classified in class 530, subclass 300, class 514, subclass 2.

SET16.

145-153.

Claims 19-22 and 28, drawn to method of treating obesity comprising administering to a patient the polypeptide of SEQ ID NO:26, 81, 73, 74, 75, 76,



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77, 78 and 83, respectively, classified in class 530, subclass 300, class 514, subclass 2.

SET17.

154-162.

Claims 19-22 and 28, drawn to method of treating lupus comprising administering to a patient the polypeptide of SEQ ID NO:26, 81, 73, 74, 75, 76, 77, 78 and 83, respectively, classified in class 530, subclass 300, class 514, subclass 2.

SET18.

163-171.

Claims 19-22 and 28, drawn to method of treating cardiovascular disease comprising administering to a patient the polypeptide of SEQ ID NO:26, 81, 73, 74, 75, 76, 77, 78 and 83, respectively, classified in class 530, subclass 300, class 514, subclass 2.

SET19.

172-180.

Claims 19-22 and 28, drawn to method of treating diabetes mellitus comprising administering to a patient the polypeptide of SEQ ID NO:26, 81, 73, 74, 75, 76, 77, 78 and 83, respectively, classified in class 530, subclass 300, class 514, subclass 2.

SET20.

181-189.

Claim 33, drawn to method of treating diabetes mellitus comprising administering to a patient the polypeptide of SEQ ID NO:26, 81, 73, 74, 75, 76, 77, 78 and 83, respectively, classified in class 530, subclass 300, class 514, subclass 2

SET21.

190-198.

Claim 19-22 and 33, drawn to method of treating arthritis comprising administering to a patient the antibody that binds the polypeptide of SEQ ID NO:26, 81, 73, 74, 75, 76, 77, 78 and 83, respectively, classified in class 424, subclass 130.1, class 530, subclass 387.1, 388.1 and 389.1, and class 514, subclass 2.

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SET22.

199-207.

Claim 19-22 and 33, drawn to method of treating inflammatory dermatosis comprising administering to a patient the antibody that binds the polypeptide of SEQ ID NO:26, 81, 73, 74, 75, 76, 77, 78 and 83, respectively, classified in class 424, subclass 130.1, class 530, subclass 387.1, 388.1 and 389.1, and class 514, subclass 2.

SET23.

108-216.

Claim 19-22 and 33, drawn to method of treating inflammatory bowel disease comprising administering to a patient the antibody that binds the polypeptide of SEQ ID NO:26, 81, 73, 74, 75, 76, 77, 78 and 83, respectively, classified in class 424, subclass 130.1, class 530, subclass 387.1, 388.1 and 389.1, and class 514, subclass 2.

SET24.

217-225.

Claim 19-22 and 33, drawn to method of treating cancer comprising administering to a patient the antibody that binds the polypeptide of SEQ ID NO:26, 81, 73, 74, 75, 76, 77, 78 and 83, respectively, classified in class 424, subclass 130.1, class 530, subclass 387.1, 388.1 and 389.1, and class 514, subclass 2.

SET25.

226-234.

Claim 19-22 and 33, drawn to method of treating kidney fibrosis comprising administering to a patient the antibody that binds the polypeptide of SEQ ID NO:26, 81, 73, 74, 75, 76, 77, 78 and 83, respectively, classified in class 424, subclass 130.1, class 530, subclass 387.1, 388.1 and 389.1, and class 514, subclass 2.

SET26.

235-243.

Claim 19-22 and 33, drawn to method of treating inflammatory lung disease comprising administering to a patient the antibody that binds the polypeptide of

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SEQ ID NO:26, 81, 73, 74, 75, 76, 77, 78 and 83, respectively, classified in class 424, subclass 130.1, class 530, subclass 387.1, 388.1 and 389.1, and class 514, subclass 2.

SET27.

244-252.

Claim 19-22 and 33, drawn to method of treating obesity comprising administering to a patient the antibody that binds the polypeptide of SEQ ID NO:26, 81, 73, 74, 75, 76, 77, 78 and 83, respectively, classified in class 424, subclass 130.1, class 530, subclass 387.1, 388.1 and 389.1, and class 514, subclass 2.

SET28.

253-261.

Claim 19-22 and 33, drawn to method of treating lupus comprising administering to a patient the antibody that binds the polypeptide of SEQ ID NO:26, 81, 73, 74, 75, 76, 77, 78 and 83, respectively, classified in class 424, subclass 130.1, class 530, subclass 387.1, 388.1 and 389.1, and class 514, subclass 2.

SET29.

262-270.

Claim 19-22 and 33, drawn to method of treating cardiovascular disease comprising administering to a patient the antibody that binds the polypeptide of SEQ ID NO:26, 81, 73, 74, 75, 76, 77, 78 and 83, respectively, classified in class 424, subclass 130.1, class 530, subclass 387.1, 388.1 and 389.1, and class 514, subclass 2.

SET30.

271-279.

Claim 19-22 and 33, drawn to method of treating diabetes mellitus comprising administering to a patient the antibody that binds the polypeptide of SEQ ID NO:26, 81, 73, 74, 75, 76, 77, 78 and 83, respectively, classified in class 424, subclass 130.1, class 530, subclass 387.1, 388.1 and 389.1, and class 514, subclass 2.

SET 31.

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280-288.

Claims 10-14, drawn to a vaccine composition comprising an antigen for the antibody which binds to polypeptide of SEQ ID NO: 26, 81, 73, 74, 75, 76, 77, 78 and 83, respectively, classified in class 530, subclasses 300 and 387.1, class 424, subclass 184.1, and class 514, subclass 2.

Claim 23 is drawn to a method of treating wounds using at least nine different polypeptides (SEQ ID NOs: 62, 81, 73-78 and 83) or the antibodies bind the polypeptides thereof. The polypeptides differ in structure and function, and are therefore patently distinct, *e.g.*, the polypeptide and the antibody that binds the polypeptide are both structurally and functionally distinct from each other (see the following statement). In total, claim 23 comprises 9 patentably distinct inventions as set forth above. Thus, The methods to treat wounds comprise ingredients, pharmacological mechanism or/and treatment outcome that are wholly different. In total, claim 23 comprises 18 patentably distinct inventions as set forth above.

Inventions of SETs 1 and 2 are patentably distinct from one another because of the materially different structures of the compounds claimed. Invention of SET 1 (polypeptide) and Invention of SET 2 (antibody) are distinct from each other because of the materially different structures of the compounds claimed. Invention of SET 1 (polypeptide) and Invention of SET 2 (antibody) are distinct from each other because of the materially different structures of the compounds claimed. Although antibody is belong to a types of polypeptide, antibody is glycosylated and its tertiary structure is unique, where four subunits (2 light chains and 2 heavy chains) associate via disulfide bonds into a Y-shaped symmetric dimer. Thus, the macromolecule of each invention would be expected to exhibit different physical and biochemical properties, and are capable of separate manufacture or use.

Invention of SET 1 (polypeptide) and Invention of SET 2 (antibody) are distinct from Invention of SET 31 (antigen to the antibody of Invention of SET 2) because of the materially different structures of the compounds claimed. The folding structure of the epitope that is a portion of a polypeptide is different from that of full-length polypeptide as well as antigenicity is distinct/different between them. Thus, the biomolecule of each invention would be expected to exhibit different physical and biochemical properties, and are capable of separate manufacture or use.

The each of inventions of SETs 3-30 are directed to different and/or distinct methods for treating different disease states. Although there are no provisions under the section for

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"Relationship of Invention" in MPEP 806.05 for inventive groups that are directed to different methods, restriction is deemed to be proper between the methods of Inventions 19 to 279 of SETs 3-30, since they constitute patentably distinct inventions comprising methodologies (pathological states), starting material, objectives, clinical or pharmacological considerations (e.g., dose, side-effect, toxicity etc.), ingredients, endpoint or/and treatment outcome. Therefore, each method is patentably distinct.

The each inventions in SETs 3-30 are drawn to the treatment of a disease state using the different agents, i.e., polypeptides and antibodies, which are distinct from one another because of the materially different structures of these biopolymers claimed that are expected to exhibit different physical and biochemical properties, and are capable of separate use. Therefore, the inventions in each SETs are patentably distinct.

Invention of SET 1 is related to SETs 3-5 and 10-20 as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (MPEP § 806.05(h)). In the instant case, the polypeptide can be used in proteinchip array to investigating a signal transduction pathway, for example.

Invention of SET 2 is related to SETs 6-8 and 21-30 as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (MPEP § 806.05(h)). In the instant case, the antibodies can be used in surface plasma resonance technique in which the antibodies are immobilized on the chip-gold surface for detecting real time protein-protein interaction, for example.

Invention of SET 31 is related to SETs 6-9 and 22-30 as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (MPEP § 806.05(h)). In the instant case, the antibody can be used in immunodetection, e.g., westernblot, for example.

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The Inventions listed in the following groups 1-3: (1) Inventions of SET 1 and Inventions of SETs 6-9 and 21-30, (2) Inventions of SET 2 and Inventions of SETs 3-5 and 10-20, and, (3) Invention SET 31 and Inventions SETs 3-5 and 10-21, are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the antibody has distinct molecular mechanism than that of the polypeptide.

Because these inventions are distinct for the reasons given above and since they have acquired a separate status in the art shown by their different classification and/or divergent subject matter, and/or are separately and independently searched, restriction for examination purposes as indicated is proper.

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a petition under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Samuel Wei Liu, Ph.D. whose telephone number is 703-306-3483. The examiner can normally be reached Monday-Friday 9:00 -5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dr. Christopher Low can be reached on 703-308-2329. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-4242 for regular communications and 703-308-4242 for After Final communications. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1235.



Samuel W. Liu, Ph.D.

April 3, 2003



KAREN COCHRANE CARLSON, PH.D.  
PRIMARY EXAMINER